

WHAT IS CLAIMED IS:

1. A blend comprising:

about 20 wt% to about 60 wt% of an impact copolymer;

about 300 to about 4000 ppm by weight of a clarifying agent;

and

a random copolymer comprising a balance of said blend.

2. The blend as recited in Claim 1 wherein said blend, when formed into a resin and extruded into a about 22 mil thick sheet, has a Haze of less than about 77% and a Energy to Maximum Load / Energy After Maximum Load ratio of at least about 1.6 at about -29°C.

3. The blend as recited in Claim 1 wherein said blend, when formed into a resin and extruded into a about 22 mil thick sheet, has a Haze of less than about 64% and a Energy to Maximum Load / Energy After Maximum Load ratio of at least about 4 at about -29°C.

4. The blend as recited in Claim 1 wherein said blend
comprises about 30 wt% to about 50 wt% of said impact copolymer,
about 1700 and 2300 ppm by weight of said clarifying agent, and
balance said random copolymer.

5. The blend as recited in Claim 1 wherein said blend
comprises about 30 wt% of said impact copolymer, about 300 to about
4000 ppm by weight of said clarifying agent, and balance of said
random copolymer.

6. The blend as recited in Claim 1 wherein said impact
copolymer is nucleator free, has a melt flow between about 0.1 g/10
min and about 5 g/min and has a crystalline composition comprising
a homopolymer, or copolymer containing less than about 5 wt% of a
comonomer, and an amorphous rubber composition comprising about 7
to about 22 weight% of said impact copolymer, said amorphous rubber
having an ethylene:propylene component ratio between about 30:70 to
about 50:50 by weight.

7. The blend as recited in Claim 1 wherein said random
2 copolymer has a melt flow between about 0.1 g/10 min and about 10
3 g/min and comprises a propylene copolymer containing ethylene
4 groups randomly inserted between propylene groups, said ethylene
5 groups comprising from about 0.2 wt% to about 4 wt% of said random
6 copolymer.

8. The blend as recited in Claim 1 wherein said clarifying
2 agent is a dibenzylidene sorbitol containing a substituant having
3 20 carbons or less selected from the group consisting of:

4 alkyl;

5 alkoxy; and

6 halogen.

9. The blend as recited in Claim 1 wherein said random
2 copolymer is a metallocene catalyzed ethylene propylene copolymer.

10. The blend as recited in Claim 9 wherein said metallocene
2 catalyzed ethylene propylene copolymer and ethylene comprises from
3 about 0.15% to about 4.0% weight percent of said metallocene
4 catalyzed ethylene propylene copolymer.

11. The blend as recited in Claim 1 wherein said impact
2 copolymer is a metallocene catalyzed impact copolymer.

12. A process for forming a resin comprising:

providing a blend comprising:

about 20 wt% to about 60 wt% of an impact copolymer;

about 300 to about 4000 ppm by weight of a clarifying agent; and

an ethylene-propylene random copolymer comprising a balance of said blend.

13. The process as recited in Claim 12, further including melting, mixing said blend to form a resin and pumping said blend to form a sheet or parison comprising said resin.

14. The process as recited in Claim 12 wherein said blend comprises said impact copolymer and a clarified random copolymer comprising said random copolymer containing said clarifying agent.

15. The process as recited in Claim 14 wherein said mixing further includes adding said clarifying agent sufficient to provide a concentration of between about 1700 and 2300 ppm by weight.

16. The process as recited in Claim 13 wherein said melting
2 comprises heating said blend to a temperature of between 176°C and
3 about 238°C.

17. The process as recited in Claim 13 wherein said forming
2 said sheet comprises heating said resin to a temperature of between
3 about 176°C and about 238°C and extruding said resin.

18. The process as recited in Claim 12 wherein providing a
2 blend includes providing a blend wherein said random copolymer is
3 a metallocene catalyzed ethylene propylene copolymer.

19. The process as recited in Claim 18 wherein ethylene
2 comprises from about 0.15% to about 4.0% weight percent of said
3 metallocene catalyzed ethylene propylene copolymer.

20. The process as recited in Claim 12 wherein providing a
2 blend includes providing a blend wherein said impact copolymer is
3 a metallocene catalyzed impact copolymer.

21. A method for preparing an article of manufacture
2 comprising:

3 preparing a resin comprising a blend of:

4 about 20 wt% to about 60 wt% of an impact copolymer;

5 about 300 to about 4000 ppm by weight of a clarifying
6 agent; and

7 a random copolymer comprising a balance of said blend;

8 and

9 forming an article comprising said resin.

22. The method as recited in Claim 21 wherein said forming
2 comprising a fabrication process selected from the group consisting
3 of:

4 injection molding;

5 blow molding; and

6 extrusion.

23. The method as recited in Claim 21 wherein said article
2 formed is a lid or a container used in low temperature packaging
3 applications.

24. The method as recited in Claim 21 wherein preparing a
2 resin includes preparing a resin wherein said random copolymer is
3 a metallocene catalyzed ethylene propylene copolymer.

25. The method as recited in Claim 24 wherein ethylene
2 comprises from about 0.15% to about 4.0% weight percent of said
3 metallocene catalyzed ethylene propylene copolymer.

26. The method as recited in Claim 21 wherein preparing a
2 resin includes preparing a resin wherein said impact copolymer is
3 a metallocene catalyzed impact copolymer.

27. An article of manufacture comprising:

a resin comprising a blend of:

about 20 wt% to about 60 wt% of an impact copolymer;

about 300 to about 4000 ppm by weight of a clarifying agent; and

a random copolymer comprising a balance of said blend.

28. The article as recited in Claim 27 wherein said article has a Notched Izod of at least about 64 J/m at 23°C.

29. The article as recited in Claim 27 wherein said article has a Notched Izod of at least about 138 J/m at 23°C.

30. The article as recited in Claim 27 wherein said article has a Gardner Mean Failure Energy of at least about 7.9 J at 23°C.